

**FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST 6171  
FOSTER FARMS- KELSO PLANT**

**Issuance Date:** May 29, 2002

*FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST 6171  
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**INTRODUCTION**

This fact sheet is a companion document to the draft State Waste Discharge Permit No. ST 6171. The Department of Ecology (the Department) is proposing to issue this permit, which will allow discharge of wastewater to the Cowlitz Water Pollution Control (CWPC) wastewater pollution control plant. This fact sheet explains the nature of the proposed discharge, the Department's decisions on limiting the pollutants in the wastewater, and the regulatory and technical bases for those decisions.

Washington State law (RCW 90.48.080 and 90.48.160) requires that a permit be issued before discharge of wastewater to waters of the state is allowed. This statute includes commercial or industrial discharges to sewerage systems operated by municipalities or public entities which discharge into public waters of the state. Regulations adopted by the state include procedures for issuing permits and establish requirements which are to be included in the permit (Chapter 173-216 WAC).

This fact sheet and draft permit are available for review by interested persons as described in Appendix A- Public Involvement Information.

The fact sheet and draft permit have been reviewed by the Permittee. Errors and omissions identified in these reviews have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of the Department's response. The fact sheet will not be revised. Changes to the permit will be addressed in Appendix C-Response to Comments.

<b>GENERAL INFORMATION</b>	
Applicant	Foster Poultry Farms
Facility Name and Address	Foster Farms Kelso Plant 1700 S. 13 <sup>th</sup> Avenue Kelso, WA 98626
Type of Facility	Poultry slaughter and processing (SIC Code 2015)
Facility Discharge Location	Latitude: 46° 07' 32.5" N      Longitude: 122° 53' 59.5" W
Treatment Plant Receiving Discharge	Cowlitz Water Pollution Control facility 467 Fibre Way, Longview, WA 98632
Contact at Facility	Frank Panarra, Plant Manager: (360)575-4900
Responsible Official	Frank Panarra, Plant Manager 1700 S. 13 <sup>th</sup> Avenue Kelso, WA 98626 360.575-4900    fax: 360.575-4948

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## BACKGROUND INFORMATION

## DESCRIPTION OF THE FACILITY

Foster Farms Kelso Plant is subject to the categorical pretreatment standards listed in 40 CFR 432.16, Simple Slaughterhouse subcategory. This facility also qualifies as a Significant Industrial User (SIU) because the discharge contributes more than five percent of the average dry weather hydraulic and organic capacity of the receiving wastewater treatment plant, Cowlitz Water Pollution Control plant (CWPC).



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**HISTORY**

Ecology received a state waste discharge permit application from Foster Farms on February 12, 1998, and an engineering report on April 3, 1998. Foster Farms Kelso Plant began operation in late April 1998. The facility is applying for renewal of their first pretreatment discharge permit, issued August 20, 1998 and modified March 8, 2000.

Foster Farms submitted an engineering report with their initial application on April 16, 1998. This report was not given final approval for procedural reasons.

**INDUSTRIAL PROCESSES**

Foster Farms operates a 110,000 square foot poultry slaughter and processing facility on a 21 acre site in Kelso, Washington. Foster Farms Kelso Plant is designed to process up to 189,000 chickens per day. Currently, Foster Farms is averaging slightly less than 160,000 birds per day. Through increased efficiencies, production might increase slightly, to around 162,000 birds per day. Fresh and frozen, whole and cut packaged chicken currently averages about 662,000 pounds per day.

The facility operates an average of 5.5 days per week, year round. A normal work week is 24-hour operation, Monday through Friday, with two processing shifts and a cleanup shift each day. One or two processing shifts may also be run on Saturday, based on demand. A maintenance shift is run on either Saturday or Sunday. The plant employees about 800 workers.

Foster Farms uses an average of 1.1 million gallons of water per day. Most of this water is directly used for chicken processing. Plant cleanup, condensate, non-contact cooling water, and domestic sanitation are the other uses. Additionally, Foster Farms needs to wash out their truck trailers. This activity was previously conducted in the parking lot, but technically this wastewater is classified as process wastewater, so disposal to ground or surface water is not allowable. Truck washing now occurs at the live bird holding station on Sundays. This area is covered and bermed, and all wash water is routed to the treatment system, where it is treated prior to discharge through their outfall.

Chemicals stored at Foster Farms are listed below, as per application renewal submittal.

<b>On-Site Chemicals</b>	<b>Quantities</b>
<u>Sanitation Chemicals</u>	
PVS Foam Cleaner	1500 gallons
PVS Quat	200 gallons
PVS CIP Cleaner	500 gallons
PVS Sodium Hypochlorite Solution	700 gallons
Foaming Acid Cleaner	110 gallons
<u>Boiler Water Treatment</u>	
Cherokee Enerex 700	110 gallons
Cherokee Enerex 705	110 gallons
Cherokee Enerex 2020	900 pounds
<u>Cooling Tower Treatment</u>	
Cherokee CWT-1002	110 gallons
<u>Maintenance Lubricants</u>	
Tekusolv Aerosol	36 - 16 ounce cans
Premalube White Aerosol	36 - 16 ounce cans
Flowlube	75 gallons
Unocal FM Oil AW	450 gallons
CP 4600-32-F	200 gallons

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<b>On-Site Chemicals</b>	<b>Quantities</b>
4025 H1 Quinplex	100 pounds
1275 Almaplex	150 pounds
607 Almasol	110 gallons
Frigoscandia formula 410	110 gallons
Used oil	200 gallons
<u>Waste Water Pretreatment</u>	
Ferric chloride Soln. Tech	3000 gallons
Magnifloc 6160 Flocculent	4000 gallons
K-305 Reodorant	75 gallons
Caustic soda 25%	130 gallons
FBS 352 Polyelectrolyte	600 gallons
Superfloc A-130 Flocculent	1500 pounds
Superfloc C-1598 Flocculent	300 gallons
<u>Propane</u>	499 gallons
<u>Refrigerant</u>	
Anhydrous Ammonia	19,000 pounds
<u>Chlorine</u>	
Calcium hypochlorite tablets	5000 pounds
<u>Gases</u>	
Carbon Dioxide (CO <sub>2</sub> )	30 tons
Liquid Nitrogen	75 tons
Acetylene	2000 cubic feet
Argon	6000 cubic feet
CO <sub>2</sub> + Argon	1900 cubic feet
Nitrogen	1000 cubic feet
Oxygen	3380 cubic feet
<u>Pesticides</u>	
Generation Rodenticide	25 pounds
Maxforce Roach Control	5 pounds
Maxforce Granular Ant Bait	5 pounds

At the wastewater treatment plant, flocculent and polymer are typically added to enhance removal efficiency, and caustic soda is added for pH adjustment.

#### TREATMENT PROCESSES

Foster Farms' onsite pretreatment system is designed to separate solid waste streams from wastewater, then treat the wastewater to reduce the loading of pollutants to CWPC. Solid waste streams are separated via screens and transported via screw conveyors to tanks or directly to trucks for transport. The solid waste streams and their disposal is shown in the table below:

<b>Waste Stream</b>	<b>Disposition</b>
Feathers	Rendered into animal feed additive at NW Organic, Donald OR
Blood	Rendered into animal feed additive at NW Organic, Donald, OR
Offal	Rendered into a feed additive at Baker Commodities, Tacoma, WA

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DAF Skimmings	Compost additive at Little Hanaford Farms, Centralia, WA.
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After separation of solid materials, wastewater from all process operations is routed to an equalization tank. From here, the wastewater is metered through a flocculator and ozonator, then through the dissolved air floatation thickener. DAF effluent is discharged to the sewer system, while the thickened skimmings are loaded into a truck for composting. Domestic wastewater enters the sewer system separately, and before the outfall monitoring station.

Since the processing plant became operational and the first permit was issued, Foster Farms has made several improvements to their wastewater collection, treatment, and monitoring systems. The sampling point was changed from the DAF effluent to the final onsite manhole, which allows sampling of all wastewater, both domestic and process. Sampling frequency for BOD and TSS was then increased from once to three times per week, and BOD is now analyzed and reported as total BOD<sub>5</sub> rather than carbonaceous only. These items were included in the permit modification in March 2000. In addition, Foster Farms installed a 350,000 gallon equalization tank, which allows a steady and well-mixed flow into the DAF, and has taken steps to reduce water use.

At current discharge levels, Foster Farms uses roughly 10-20 percent of the receiving POTWs hydraulic and organic capacity. However, because of improvements in water reduction and the treatment system, Foster Farms has reduced the average strength of their wastewater while not increasing wastewater flow. The following chart shows total annual flow and average BOD for the last three years.

<b>Calendar year:</b>	<b>Total Flow, MG</b>	<b>Avg. BOD conc., mg/L</b>
1999 annual total	279	400
2000 annual total	238	251
2001 annual total	256	239

*PERMIT STATUS*

The previous permit for this facility was issued on August 20, 1998. The permit was then modified March 8, 2000.

An application for permit renewal was submitted to the Department on June 26, 2000 and accepted by the Department on August 1, 2000.

*SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT*

During the history of the current permit, the Permittee has remained in compliance based on Discharge Monitoring Reports (DMRs) and other reports submitted to the Department and inspections conducted by the Department, with the following exceptions (January 1998 through September 2001):

<b>Parameter</b>	<b>Date</b>	<b>Value Reported</b>	<b>Permit Limit</b>
Fats, Oils, & Grease (FOG)	November 1998	No report	100 mg/L daily
	" "	" "	150 mg/L monthly average
	December 1998	1160 mg/L daily	100 mg/L daily;
	" "	240 mg/L MA	150 mg/L monthly average
pH	December 1999	2.6 minimum	>5.0
	November 2000	4.79 minimum	>5.0

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<b>Parameter</b>	<b>Date</b>	<b>Value Reported</b>	<b>Permit Limit</b>
BOD	July 1999	277 mg/L MA	260 mg/L monthly average
	August 1999	281 mg/L MA	" "
	January 2000	295 mg/L MA	" "
	February 2000	310 mg/L MA	" "
	March 2000	330 mg/L MA	" "
	April 2000	301 mg/L MA	" "
	July 1999	460 mg/L DM	450 mg/L daily maximum
	January 2000	632 mg/L DM	" "
	February 2000	537 mg/L DM	" "
	March 2000	817 mg/L DM	" "
	April 2000	515 mg/L DM	" "
	October 2001	474 mg/L DM	" "
TSS	March 2000	363 mg/L DM	350 mg/L daily maximum

Since being permitted, Ecology has issued the following enforcement actions to Foster Farms:

<b>Date</b>	<b>Docket #</b>	<b>Description</b>
2/26/98	-	Notice of Correction: Submit engineering report and O&M manual for treatment system.
4/21/98	DE 98WQ-S193	Order: Prosecutorial discretion allowing discharge until issuance of discharge permit (from NOV dated 2/28/98).
12/29/98	-	Warning letter: failure to submit FOG results for 11/98.
2/10/99	-	Warning letter re: 12/98 FOG exceedances
7/26/99	DE 99WQ-S270	Notice of Violation re: March BOD results.
10/21/99	-	Warning letter, re: July 1999 BOD exceedances
12/9/99	-	Warning letter, re: August 1999 BOD exceedance
12/22/99	DE 99WQSR-44	Order requiring DMR calculation changes and implementation of improvements listed in 11/2/99 James Marnatti letter.
4/7/00	-	Warning letter, re: 12/99 pH, 1/00 BOD, & 2/00 BOD exceedances
5/23/00	DE 00WQSR-1120	Notice of Correction: submit renewal application and adhere to noncompliance reporting requirements.
5/23/00	-	Warning letter re: March 2000 BOD & TSS exceedances
7/25/00	-	Warning letter re: April 2000 BOD exceedances



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<b>Date</b>	<b>Docket #</b>	<b>Description</b>
8/25/00	DE 00WQSR-1492	Notice of Correction for violations: comply with all permit conditions for two years, starting 9/00.
1/30/01	DE 01WQSR-1948	\$1000 Penalty for November 2000 pH violation.
1/xx/02	DE 02WQSR-xxxx	\$1000 Penalty for October 2001 BOD exceedance

*WASTEWATER CHARACTERIZATION*

The concentration of pollutants in the discharge was reported in the permit application and in discharge monitoring reports (DMR's). The proposed wastewater discharge is characterized for the following parameters, as per DMR's from July 1999 through September 2001:

<b>Parameter</b>	<b>Concentration</b>
Flow	Daily Maximum range 0.88 - 1.49 MGD; Average 0.73 MGD
pH	Range 5.03*-8.13
Biochemical Oxygen Demand (BOD)	Pounds/day: average 1593, maximum 5294 mg/L: average 223, maximum 817
Total Suspended Solids (TSS)	Pounds/day: average 469, maximum 2359 mg/L: average 65, maximum 363
Fat, Oil & Grease	Range: <1-33 mg/L
Temperature	21-23 degrees C.
Ammonia (as Nitrogen)	Range: 1.52- 41 mg/L; average 14.2 mg/L

\* doesn't include two exceedances of 2.6 and 4.8.

**PROPOSED PERMIT LIMITATIONS**

State regulations require that limitations set forth in a waste discharge permit must be based on the technology available to treat the pollutants (technology-based) or be based on the effects of the pollutants to the POTW (local limits). Wastewater must be treated using all known, available, and reasonable treatment (AKART) and not interfere with the operation of the POTW.

The minimum requirements to demonstrate compliance with the AKART standard and specific design criteria for this facility were determined in the referenced engineering report *Brown and Caldwell, 1998*.

The more stringent of the local limits-based or technology-based limits are applied to each of the parameters of concern. Each of these types of limits is described in more detail below.

*TECHNOLOGY-BASED EFFLUENT LIMITATIONS*

All waste discharge permits issued by the Department must specify conditions requiring available and reasonable methods of prevention, control, and treatment of discharges to waters of the state (WAC 173-216-110). Existing federal categorical pretreatment limitations for this facility are found under 40 CFR Part 432.16, subpart A- Simple Slaughterhouse subcategory. The requirement is that the facility must

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comply with 40 CFR part 403, the general pretreatment standards. These standards are included in the general conditions of the proposed permit. To comply with AKART, Foster Farms must use all pretreatment process units as designed and described in the engineering report (Brown and Caldwell, 1998 and amendments) and limit their total process wastewater discharge rate to less than 850 gpm (1.224 MGD), to maintain flow meter accuracy. Specific pollutants of concern from Foster Farms include BOD, TSS, and FOG. These pollutant concentrations usually meet permit limits if the flow rate is controlled and the DAF is operating at designed efficiency.

*EFFLUENT LIMITATIONS BASED ON LOCAL LIMITS*

In order to protect the Cowlitz Water Pollution Control Plant from pass-through, interference, concentrations of toxic chemicals that would impair beneficial or designated uses of sludge, or potentially hazardous exposure levels, limitations for certain parameters are necessary. These limitations are based on local limits established by CWPC and the City of Kelso. Applicable limits for this discharge include the following:

<b>Jurisdiction</b>	<b>Parameter</b>	<b>Limit</b>	<b>Comments</b>
Cowlitz Sewer Operating Board (CSOB)	BOD	250 mg/L*	If exceeded, a high strength fee is applied
CSOB	TSS	250 mg/L*	If exceeded, a high strength fee is applied
CSOB	pH	5.5-9 std. Units*	
City of Kelso	pH	6-9 std. units	
City of Kelso	BOD	<30 pounds/day <300 mg/L	Permission is needed to exceed.
City of Kelso	TSS	<30 pounds/day <350 mg/L	Permission is needed to exceed.

\* CSOB proposed Pretreatment Limits

*COMPARISON OF LIMITATIONS WITH THE EXISTING PERMIT ISSUED AUGUST 20, 1998*

The proposed limits reflect the modified limits of the current permit, with the exception of pH and flow rate. The proposed pH limits will reflect the proposed pH limits of CSOB. The total daily flow limit of 1.5 MGD is retained, with the addition of the rate limit of 850 gallons per minute. This limit shall be applied at the equalization tank, where an inline flow meter and valve restricts the flow through the treatment system. This limit acknowledges a practical limitation for optimum operation of the treatment system. If operated continuously for 24 hours, this limit will restrict process wastewater flow to 1.224 MGD ((850 gpm x 1440 minutes per day). This will thus allow 0.276 MGD for domestic wastewater, to stay under the limit of 1.5 MGD. At the full compliment of 800 employees, this translates to an allowance of at least 345 gallons per employee per work day.

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<b>Parameter Limits</b>	<b>Existing Limits</b>	<b>Proposed Limits</b>
Flow: MGD gpm	1.5 -	1.5 850*
BOD, mg/L	260/450 MA/DM	260/450 MA/DM
BOD, pounds/day	3300/5600 MA/DM	3300/5600 MA/DM
TSS, mg/L	220/350 MA/DM	220/350 MA/DM
TSS, pounds/day	2800/4400 MA/DM	2800/4400 MA/DM
FOG, mg/L	100/150 MA/DM	100/150 MA/DM
pH, standard units	5.0-10.0	5.5-9.0

\* - Allowable rate from the equalization tank.

MA/DM = monthly average limit/ daily maximum limit.

The limitation of 850 gpm represents a bottleneck in the treatment process. Foster Farms is currently investigating ways to open up that bottleneck. This change would require an approved engineering report. It is anticipated that the flow rate restriction of 850 gpm could then be removed, but the daily flow limit of 1.5 MGD would remain.

### **MONITORING REQUIREMENTS**

Monitoring, recording, and reporting are specified to verify that the treatment process is functioning correctly, and that effluent limitations are being achieved (WAC 173-216-110). Foster Farms monitoring schedule was adjusted when the permit was modified on March 8, 2000. No changes to the current monitoring required are proposed at this time. Flow measurement and sample collection both occur at the last sewer manhole on Foster Farms property, which is on the street side (west) of the entry booth at Foster Farms.

The monitoring schedule is detailed in the proposed permit under Condition S2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring. Monitoring frequencies will remain unchanged from the current permit.

### **OTHER PERMIT CONDITIONS**

#### *REPORTING AND RECORDKEEPING*

The conditions of S3 are based on the authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges (WAC 273-216-110 and 40 CFR 403.12 (e),(g), and (h)).

#### *OPERATIONS AND MAINTENANCE*

The proposed permit contains condition S.4. as authorized under Chapter 173-240-150 WAC and Chapter 173-216-110 WAC. It is included to ensure proper operation and regular maintenance of equipment, and to ensure that adequate safeguards are taken so that constructed facilities are used to their optimum potential in terms of pollutant capture and treatment. The proposed permit requires submission of an updated O&M manual for the entire wastewater system.

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*PROHIBITED DISCHARGES*

Certain pollutants are prohibited from being discharged to the POTW. These include substances which cause pass-through or interference, pollutants which may cause damage to the POTW or harm to the POTW workers (Chapter 173-216 WAC) and the discharge of designated dangerous wastes not authorized by this permit (Chapter 173-303 WAC).

*DILUTION PROHIBITED*

The Permittee is prohibited from diluting its effluent as a partial or complete substitute for adequate treatment to achieve compliance with permit limitations.

*SOLID WASTE PLAN*

The Department has determined that the Permittee has a potential to cause pollution of the waters of the state from leachate of solid waste.

This proposed permit requires, under authority of RCW 90.48.080, that the Permittee develop and submit to the Department a solid waste plan to prevent solid waste from causing pollution of waters of the state. The plan must also be submitted to the local solid waste permitting agency for approval.

*NON-ROUTINE AND UNANTICIPATED DISCHARGES*

Occasionally, this facility may generate wastewater which is not characterized in their permit application because it is not a routine discharge and was not anticipated at the time of application. These typically are waters used to pressure test storage tanks or fire water systems or leaks from drinking water systems. These are typically clean waste waters but may be contaminated with pollutants. The permit contains an authorization for non-routine and unanticipated discharges. The permit requires a characterization of these waste waters for pollutants and examination of the opportunities for reuse. Depending on the nature and extent of pollutants in this wastewater and opportunities for reuse, Ecology may authorize a direct discharge via the process wastewater outfall or through a stormwater outfall for clean water, require the wastewater to be placed through the facilities wastewater treatment process or require the water to be reused.

*SPILL PLAN*

The Department has determined that the Permittee stores a quantity of chemicals that have the potential to cause water pollution if accidentally released. The Department has the authority to require the Permittee to develop best management plans to prevent this accidental release under section 402(a)(1) of the Federal Water Pollution Control Act (FWPCA) and RCW 90.48.080.

The Permittee has developed a plan for preventing the accidental release of pollutants to state waters and for minimizing damages if such a spill occurs. The proposed permit requires the Permittee to update this plan and submit it to the Department.

*SLUG DISCHARGE CONTROL PLAN*

The Department has determined that the Permittee has the potential for a batch discharge or a spill that could adversely effect the POTW. Therefore an update of Foster Farms' existing slug discharge control plan is required (40 CFR 403.8 (f)).

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*GENERAL CONDITIONS*

General Conditions are based directly on state laws and regulations and have been standardized for all industrial waste discharge to POTW permits issued by the Department.

Condition G1 requires responsible officials or their designated representatives to sign submittals to the Department. Condition G2 requires the Permittee to allow the Department to access the treatment system, production facility, and records related to the permit. Condition G3 specifies conditions for modifying, suspending or terminating the permit. Condition G4 requires the Permittee to apply to the Department prior to increasing or varying the discharge from the levels stated in the permit application. Condition G5 requires the Permittee to construct, modify, and operate the permitted facility in accordance with approved engineering documents. Condition G6 prohibits the Permittee from using the permit as a basis for violating any laws, statutes or regulations. Conditions G7 and G8 relate to permit renewal and transfer. Condition G9 requires the Permittee to control production or wastewater discharge in order to maintain compliance with the permit. Condition G10 prohibits the reintroduction of removed pollutants into the effluent stream for discharge. Condition G11 requires the payment of permit fees. Condition G12 describes the penalties for violating permit conditions.

**PUBLIC NOTIFICATION OF NONCOMPLIANCE**

A list of all industrial users which were in significant noncompliance with Pretreatment Standards or Requirements during any of the previous four quarters may be annually published by the Department in a local newspaper. Accordingly, the Permittee is apprised that noncompliance with this permit may result in publication of the noncompliance.

**RECOMMENDATION FOR PERMIT ISSUANCE**

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics. The Department proposes that the permit be issued for 5 years.

**REFERENCES FOR TEXT AND APPENDICES**

Brown and Caldwell, 1998. Engineering Report for Industrial Wastewater Treatment Process at Foster Farms Kelso, Washington Facility. Brown and Caldwell, Portland, Oregon April 2, 1998.

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**APPENDICES**

*APPENDIX A—PUBLIC INVOLVEMENT INFORMATION*

The Department has tentatively determined to reissue a permit to the applicant listed on page 1 of this fact sheet. The permit contains conditions and effluent limitations which are described in the rest of this fact sheet.

Public notice of application was published on October 11 and 18, 2001 in the *Longview Daily News* to inform the public that an application had been submitted and to invite comment on the reissuance of this permit.

The Department will publish a Public Notice of Draft (PNOD) on April 3, 2002 in the *Longview Daily News* to inform the public that a draft permit and fact sheet are available for review. Interested persons are invited to submit written comments regarding the draft permit. The draft permit, fact sheet, and related documents are available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below. Written comments should be mailed to:

Water Quality Permit Coordinator  
Department of Ecology  
Southwest Regional Office  
300 Desmond Drive SE  
Lacey, WA 98503

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the thirty (30) day comment period to the address above. The request for a hearing shall indicate the interest of the party and reasons why the hearing is warranted. The Department will hold a hearing if it determines there is a significant public interest in the draft permit (WAC 173-216-100). Public notice regarding any hearing will be circulated at least thirty (30) days in advance of the hearing. People expressing an interest in this permit will be mailed an individual notice of hearing.

Comments should reference specific text followed by proposed modification or concern when possible. Comments may address technical issues, accuracy and completeness of information, the scope of the facility's proposed coverage, adequacy of environmental protection, permit conditions, or any other concern that would result from issuance of this permit.

The Department will consider all comments received within thirty (30) days from the date of public notice of draft indicated above, in formulating a final determination to issue, revise, or deny the permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information may be obtained from the Department by telephone, (360)407-6286, or by writing to the address listed above.

This permit was written by Donald L. Reif, Environmental Engineer.

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*APPENDIX B—GLOSSARY*

**Average Monthly Discharge Limitation**—The average of the measured values obtained over a calendar month's time.

**Best Management Practices (BMPs)**--Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

**BOD<sub>5</sub>**--Determining the Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD<sub>5</sub> is used in modeling to measure the reduction of dissolved oxygen in a receiving water after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

**Bypass**—The intentional diversion of waste streams from any portion of the collection or treatment facility.

**Categorical Pretreatment Standards**—National pretreatment standards specifying quantities or concentrations of pollutants or pollutant properties which may be discharged to a POTW by existing or new industrial users in specific industrial subcategories.

**Compliance Inspection - Without Sampling**--A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

**Compliance Inspection - With Sampling**--A site visit to accomplish the purpose of a Compliance Inspection - Without Sampling and as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Additional sampling may be conducted.

**Composite Sample**—A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite"(collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots.

**Continuous Monitoring** --Uninterrupted, unless otherwise noted in the permit.

**Engineering Report**—A document, signed by a professional licensed engineer, which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

**Grab Sample**—A single sample or measurement taken at a specific time or over as short period of time as is feasible.

**Industrial User**—A discharger of wastewater to the sanitary sewer which is not sanitary wastewater or is not equivalent to sanitary wastewater in character.

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**Industrial Wastewater**—Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource, or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

**Interference**— A discharge which, alone or in conjunction with a discharge or discharges from other sources, both: inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal and; therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), sludge regulations appearing in 40 CFR Part 507, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

**Local Limits**—Specific prohibitions or limits on pollutants or pollutant parameters developed by a POTW.

**Maximum Daily Discharge Limitation**—The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

**Method Detection Level (MDL)**--The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is above zero and is determined from analysis of a sample in a given matrix containing the analyte.

**Pass-through-** A discharge which exits the POTW into waters of the-State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation), or which is a cause of a violation of State water quality standards.

**PH-** the pH of a liquid measures its acidity or alkalinity. A pH of 7 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

**Quantitation Level (QL)**-- A calculated value five times the MDL (method detection level).

**Significant Industrial User (SIU)**--

- 1) All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N and;
- 2) Any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blow-down wastewater); contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority\* on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

Upon finding that the industrial user meeting the criteria in paragraph 2, above, has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or



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requirement, the Control Authority\* may at any time, on its own initiative or in response to a petition received from an industrial user or POTW, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a significant industrial user.

\*The term "Control Authority" refers to the Washington State Department of Ecology in the case of non-delegated POTWs or to the POTW in the case of delegated POTWs.

**Slug Discharge**—Any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge to the POTW. This may include any pollutant released at a flow rate which may cause interference with the POTW.

**State Waters**—Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

**Stormwater**—That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

**Technology-based Effluent Limit**—A permit limit that is based on the ability of a treatment method to reduce the pollutant.

**Total Suspended Solids (TSS)**--Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

**Water Quality-based Effluent Limit**- A limit on the concentration of an effluent parameter that is intended to prevent the concentration of that parameter from exceeding its water quality criterion after it is discharged into a receiving water.

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*APPENDIX C—RESPONSE TO COMMENTS*

One comment was received, from Keith Gardner, Pretreatment Operator, on behalf of Cowlitz Water Pollution Control. The comment is included in its entirety:

*We have reviewed the proposed Discharge Permit for Foster Farms and submit the following comments.*

*Foster Farms treated effluent is discharged into a lateral sewer line owned by the City of Kelso. The City of Kelso has a discharge pH limitation of 6 to 9. The manhole and the interceptor it discharges into are owned by the Cowlitz Sewer Operating Board. Because Foster Farms contributes 10 to 20 percent of our hydraulic flows we believe Foster Farms should meet a pH discharge limitation of 6 to 9.*

Ecology response: Ecology concurs with every factual point in this comment. Ecology's approach for pretreatment limits, in multi-jurisdictional cases such as this, is that the most stringent limit is normally used. In this case, the most stringent limit is 6 to 9. However, Foster Farms was concerned about the ramifications of this change, from an economic standpoint and treatment plant stability. The City of Kelso, when contacted on this issue, stated that a limit of 5.5 was acceptable for this short run of sewer conduit. The City of Kelso is currently re-evaluating their pretreatment limits, which could lead to expanded limits. Also, they are constructing new water treatment facilities which is expected to raise the pH of their drinking water.

Therefore, under this set of circumstances, Ecology believes that 5.5 is a reasonable lower pH limit and will maintain that limit, as proposed in the draft permit.